IN THE CLAIMS

Please amend the claims as follows:

Claims 1-15 (Cancelled)

16. (Currently amended) A method for mapping a texture onto a surface of a computer generated object represented by a plurality of pixels, comprising:

dividing a texture map into blocks, the texture map comprising a plurality of texels, each texel having an associated value;

determining two block values for each block, ~~which~~ wherein the block values are representative of the values of texels in the block, and wherein determining two block values for each block further comprises:[[;]]

calculating a tensor of inertia from texel values;

determining an eigenvector having a smallest eigenvalue from the tensor;

multiplying the smallest eigenvalue eigenvector with the texel values; and

splitting the texel values in two groups by comparing a result of the multiplication with a threshold value;

compressing the texture map by assigning to each texel one of the two block values associated with the block of which it is part; and

mapping ~~said~~ the compressed texture map onto the surface of the computer generated object.

17. (Currently Amended) The method ~~as set forth in~~ of claim 16, wherein the block values associated with the texture map are quantized to a smaller number of bits.

18. (Cancelled)

19. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein the texture map corresponds to a filtered texture map of lesser detail than a texture map of full detail.

20. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein mapping ~~said~~ the compressed texture map onto the surface of the computer generated object further comprises:

for each pixel which represents the computer generated object, accessing ~~said~~ the compressed texture map at least one time; and

responding to ~~said~~ the compressed texture map being accessed more than one time by interpolating results of the accesses.

21. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein mapping ~~said~~ the compressed texture map onto the surface of the computer generated object further comprises:

approximating true pixel color by performing a number of texturing operations according to a geometric shape of a projection of a pixel on the texture and averaging results of ~~said~~ the texturing operations.

22. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein the texture is an environment map.

23. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein the mapping is carried out in real time using dedicated arithmetic units.

Claims 24-28 (Cancelled)

29. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein the texture is a reflectance map.

30. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein the texture is a detail map.

31. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein each block value represents luminance of a texel.

32. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein each block value represents an index into a look-up table.

33. (Currently amended) The method ~~as set forth in~~ of claim 16, wherein each block value represents color of a texel.

Claims 34-53 (Cancelled)

54. (Currently Amended) A method for mapping a texture ~~onto~~ on a surface of a computer generated object represented by a plurality of pixels, comprising:

dividing a texture map into blocks, the texture map comprising a plurality of texels, each texel having an associated value;

determining two block values representative of the texel values for each block, the determining comprising calculating a tensor of inertia from the texel values, determining an eigenvector having a smallest eigenvalue from the tensor, multiplying the smallest eigenvalue eigenvector with the texel values; and splitting the texel values in two groups by comparing a result of the multiplication with a threshold value;

compressing the texture map by assigning to each texel one of the block values associated with the block of which it is part.

55. (new) The method of claim 54, wherein the block values associated with the texture map are quantized to a smaller number of bits.

56. (new) The method of claim 54, wherein the texture map corresponds to a filtered texture map of lesser detail than a texture map of full detail.

57. (new) The method of claim 54, wherein the texture is an environment map.

58. (new) The method of claim 54, wherein the mapping is carried out in real time using dedicated arithmetic units.

59. (new) The method of claim 54, wherein the texture is a reflectance map.

60. (new) The method of claim 54, wherein the texture is a detail map.

61. (new) The method of claim 54, wherein each block value represents luminance of a texel.

62. (new) The method of claim 54, wherein each block value represents an index into a look-up table.

63. (new) The method of claim 54, wherein each block value represents color of a texel.

64. (new) The method of claim 54, further comprising:

mapping the compressed texture map onto the surface of the computer generated object.

65. (new) The method of claim 64, wherein mapping the compressed texture map onto the surface of the computer generated object further comprises:

for each pixel which represents the computer generated object, accessing the compressed texture map at least one time; and

responding to the compressed texture map being accessed more than one time by interpolating results of the accesses.

66. (new) The method of claim 64, wherein mapping the compressed texture map onto the surface of the computer generated object further comprises:

approximating true pixel color by performing a number of texturing operations according to a geometric shape of a projection of a pixel on the texture and averaging results of the texturing operations.

67. (new) A computer-readable medium comprising instructions for mapping a texture on a surface of a computer generated object represented by a plurality of pixels, the instructions comprising:

dividing a texture map into blocks, the texture map comprising a plurality of texels, each texel having an associated value;

determining two block values representative of the texel values for each block, the determining comprising calculating a tensor of inertia from the texel values, determining an eigenvector having a smallest eigenvalue from the tensor, multiplying the smallest eigenvalue eigenvector with the texel values; and splitting the texel values in two groups by comparing a result of the multiplication with a threshold value;

compressing the texture map by assigning to each texel one of the block values associated with the block of which it is part.

68. (new) The computer-readable medium of claim 67, the instructions further comprising:

mapping the compressed texture map onto the surface of the computer generated object.